''myopic behavior.'' Consumption in MEG is determined according to the life-cycle theory, which implies that individuals attempt to even out their consumption patterns during their lifetimes.

MEG differs from a simple neoclassical growth model in that prices in MEG adjust to equilibrate supply and demand with a delay or lag, rather than instantaneously. This feature allows the model to simulate a disequilibrium adjustment path, in which resources may be underemployed or over-employed (used at an unsustainable rate) in response to policies that stimulate or depress economic activity. It also allows an analysis of the effects of differing intervention policies by the Federal Reserve Board. In this respect, the MEG model resembles econometric models such as the Macroeconomic Advisers model and the Global Insight model.

In the MEG simulations in each of the tables below, it is assumed that the Federal Reserve Board either acts aggressively by raising interest rates to counteract almost completely any demand stimulus provided by H.R. 2 (''MEG aggressive Fed response''), or remains neutral with respect to any changes in fiscal policy, allowing temporary changes in demand to affect levels of employment and output (''MEG neutral Fed response'').

The Global Insight (''GI'') econometric model.—Like the MEG model, this commercially available model is capable of simulating disequilibrium adjustments to changes in demand. The model is made up of a set of equations that estimate from historical data the behavioral coefficients that determine the timing and strength of economic relationships within the model. Comparable parameters in the MEG and OLG models are derived from economic research. In many cases this research is also based on econometric analysis of historical data.

Individuals and firms behave myopically in the GI model. For this analysis, the Joint Committee staff uses an estimated monetary reaction function designed to moderate gradually, but not completely offset, deviations from full employment by lowering or increasing interest rates. Thus, if the economy is operating near capacity, proposals that increase employment and accelerate the economy will result in increasing interest rates.

The overlapping generations life cycle model (''OLG'').—In this model, individuals are assumed to make consumption and labor supply decisions with perfect foresight of economic conditions, such as wages, prices, interest rates, tax rates, and government spending, over their lifetimes. The OLG model is similar to the type of model described as a ''life cycle model'' by the CBO, ibid.

One result of the perfect foresight assumption is that if a policy results in an economically unstable outcome, such as increasing government deficits indefinitely into the future, the model will not solve. Therefore, to run simulations in this model, it is necessary to assume that an offsetting budget balancing fiscal policy will be enacted. In the tables below, it is assumed that either government spending will be reduced after 2013 to offset the tax cut (''OLG future government spending offset'') or individual income tax rates will be increased after 2013 (''OLG future tax rate increase'').

The cut in government spending to offset the costs of a tax cut can be modeled either as a cut in transfer payments, as is presented here, or as a cut in ''non-productive government spending.'' The latter assumption is used in CBO, ibid. The difference between the two approaches is that consumers are assumed to value transfer payments, and thus work and save more within the budget window in anticipation of losing them; but they are assumed not to value non-productive spending, and therefore do not increase work or savings in anticipation of this cut. Thus, the anticipation of valued spending cuts results in more growth in the early years than the anticipation of non-valued spending cuts.

(B) RESULTS FORMAT

Because the exact time path of the economy's adjustment to changes such as a new tax policy is highly uncertain, the Joint Committee staff presents results as percent changes during the Congressional budgeting time frame. In addition, for the MEG and OLG models, which have been designed to provide long-run equilibrium results, information is provided about the long run. While it is impossible to incorporate unknowable intervening circumstances, such as major resource or technological discoveries or shortages, these models are designed to predict the long-run effects of policy changes, assuming other, unpredictable influences are held constant.

Because the MED model is myopic, if the policy simulated is ultimately a fiscally unstable policy, such as a net decrease in taxes that produces deficits that grow faster than the rate of growth of the economy, ''long-run'' is defined as the last period before the model fails to solve because of this unstable situation. For the OLG simulations, which incorporate a stabilizing fiscal policy offset, ''long-run'' is defined as the eventual steady-state solution.

2. ESTIMATED MACROECONOMIC EFFECTS OF H.R. 2

The magnitude of the macroeconomic effects generated by these simulations depends upon a number of assumptions, some of which are described above, that are inherent in the models used. Several additional assumptions detailed below.

(A) ASSUMPTIONS

Effect of tax rate reductions on investment.—Reductions in marginal tax rates (tax rates on the last dollar of income earned) on interest, dividend, or capital gains income create incentives for individuals to save and invest a larger share of their income, as each additional dollar of investment yields more after-tax income. Conversely, reductions in the average tax rate on income from capital provide taxpayers with more after-tax income for the same amount of investment, reducing their incentive to save and invest. Changes in the statutory tax rate affect both marginal and average rates of tax on these sources of income, providing potentially offsetting incentives. Consistent with existing research, the model simulations assume that on net, the marginal rate effect is slightly larger than the average rate effect, and thus decreases in tax rates on capital income increase savings.

Effect of reductions in the dividend tax rate.—There is general agreement that dividend taxation reduces the return on investments financed with new share issues. However, there are two alternative views regarding the effect of dividend taxation on corporate investment returns financed with retained earnings. The ''traditional view'' holds that reductions in dividend taxes would lower the cost of corporate investment financed with either new share issues or retained earnings, and thus would provide an incentive for corporations to increase investment. Alternatively, the ''new view,'' holds that a reduction in the dividend tax rate would not lower the cost of corporate investment financed with retained earnings. Under this view, a decrease in the dividend tax rate would result in an immediate increase in the value of outstanding stock reflecting the reduction in dividend tax payments, thus increasing the wealth of the stockholders, and providing an incentive for additional consumption. The model simulations assume that half of the corporate sector is in accordance with the traditional view and half with the new view.

Foreign investment flows.—Increased Federal government budget deficits increase the amount of borrowing by the Federal government. Unless individuals increase their savings enough to finance completely the increased deficit, the increase in government borrowing will reduce the amount of domestic capital available to finance private investment. This effect is often referred to as the ''crowding out'' of private business activity by Federal government activity. A reduction in national saving may lead to a reduction in domestic investment, and domestic capital formation, depending on the mobility of international capital flows. The government and private firms would compete for the supply of available funds and interest rates would rise to equate the demand and supply of funds. Returns on foreign investments would accure mainly to foreigners and would only increase the resources available to Americans to the extent that higher domestic investment resulted in higher wages in the United States. The MEG and GI simulations incorporate an assumption that there would be some in-flow of foreign capital to the extent that the rate of return on capital is increased by the tax policy. However, the inflow in foreign capital is not enough to offset completely the increased Federal borrowing. The OLG simulations assume there is no inflow of foreign capital.

Effect of tax rate reductions on labor supply.—As in the case of savings responses, tax rate reductions provide offsetting labor supply incentives. Reductions in the marginal tax rate on earnings create an incentive to work more because taxpayers get to keep more of each dollar earned, making each additional hour of work more valuable; while reductions in the average tax rate create an incentive to work less, because they result in taxpayers having more after-tax income at their disposal for a given amount of work.

Consistent with existing research, the simulations assume that taxpayers in different financial positions respond differently to these incentives. Typically, the largest response comes from secondary workers (individuals whose wages make a smaller contribution to household income than the primary earner in the household) and other underemployed individuals entering the labor market. As described above, labor supply responses are modeled separately for four different groups in MEG: low income primary earners, other primary earners, low income secondary earners, and other secondary earners.

Effects of reductions in tax liability on demand.—Generally, any net reduction in taxes results in taxpayers making more purchases because they have more take-home income at their disposal. Policies that increase incentives for taxpayers to spend their income rather than save it provide a bigger market for the output of businesses. The amount of economic stimulus resulting from demand side incentives depends on whether the economy has excess capacity at the time of enactment of the policy, and on how the Federal Reserve Board reacts to the policy. If the economy is already producing near capacity, demand-side policies may, instead, result in inflation, as consumers bid up prices to compete for a fixed amount of output. If the Federal Reserve Board believes there is a risk that the policy will result in inflation, it may raise interest rates to discourage consumption. In this case, depending on how strongly the Federal Reserve Board